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Carbon TerraVault Holdings, LLC Announces California DAC Hub Consortium to Bring Direct Air Capture and Storage to the Golden State

07 Feb, 2023

Consortium Accelerates California's Climate Leadership and Offers Transformative Benefits to Local Communities

LONG BEACH, Calif.--(BUSINESS WIRE)-- Carbon TerraVault Holdings, LLC (CTV), a subsidiary of California Resources Corporation (NYSE: CRC), today announced it has assembled a consortium of organizations across industry, technology, academia, national labs, community, government, and labor, to pursue U.S. Department of Energy (DOE) funding under its Regional Direct Air Capture (DAC) Hubs Initiative to create the California DAC Hub, the state's first full-scale DAC plus storage (DAC+S) network of regional DAC+S hubs. DAC+S is a solution that can remove and then permanently store atmospheric carbon dioxide (CO₂) using low carbon emission energy and provide economic benefits to surrounding communities.



California DAC Hub Consortium (Graphic: Businessmain Wire)

California DAC Hub will help accelerate the Golden State's climate leadership and achieve its carbon neutrality goal, and prioritize surrounding under-represented California communities through transformative benefits potentially including local air quality improvements, from helping maximize the use of renewable প্রাপ্ত utilization of reclaimed water and/or production of new water; quality

union jobs in construction and low carbon energy technologies; and science, technology, engineering, and math (STEM) and energy transition education programs. Through California DAC Hub, the consortium will pursue funding to develop a network of DAC+S hubs across the state under the DOE's Regional DAC Hubs Initiative, as outlined under the recent \$3.5 billion Funding Opportunity Announcement (FOA), to accelerate the commercialization of atmospheric CO₂ removal via integrated capture, processing, transport, and secure geologic storage. CO₂ from DAC+S hubs will not be used for enhanced oil recovery. Key to the success of the California DAC Hub will be strong relationships with diverse community stakeholders to develop an equitable, just, and environmentally responsible approach to the project.

Non-profit energy research and development institute EPRI intends to submit an application to the DOE on or before March 13, 2023, as specified in the FOA instructions on behalf of the California DAC Hub consortium, including consortium lead CTV Direct, LLC, a wholly owned subsidiary of CTV focused exclusively on DAC+S, and community benefits plan lead Kern Community College District (Kern CCD). The first hub is targeted to launch in Kern County, California, and the consortium will look to expand to other locations across the state. Each hub will provide benefits to surrounding communities, such as high-paying and permanent jobs and training programs for reskilling workers, to help California progress toward its 2030 and 2045 carbon removal goals.

Following Governor Gavin Newsom's call for more ambitious climate action, the California Air Resources Board (CARB) released its updated California Climate Plan to implement the most ambitious climate action of any jurisdiction in the world, including annual carbon removal/capture targets of 20 million metric tonnes (MT) of CO₂ equivalent by 2030 and 100 million MT by 2045. According to the Intergovernmental Panel on Climate Change (IPCC), carbon removal methods such as DAC+S are key to mitigation pathways aimed at keeping global warming to below 1.5 degrees Celsius. In its 2022 Scoping Plan For Achieving Carbon Neutrality, CARB quoted the IPCC saying, "The deployment of CDR [carbon dioxide removal] to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO₂ or GHG [greenhouse gas] emissions are to be achieved." California DAC Hub, combined with permanent geological storage, will be essential to executing on those ambitions and helping build a clean and equitable energy economy that benefits all California communities.

The blueprint for expanding DAC+S throughout California leverages the significant ongoing investments in the San Joaquin Valley community, including:

- The **High Road Training Partnerships (HRTP) initiative**, a \$10 million demonstration project designed to model partnership strategies in the state to address urgent guestions of income inequality, economic competitiveness, and climate change through regional skills strategy programs. Projects identified for the San Joaquin Valley include "High Road to Manufacturing in San Joaquin Valley" and "High Road to Regional Workforce Strategies: Kern County."
- The Community Economic Resilience Fund (CERF), a program created to promote a sustainable and equitable recovery from the economic distress of COVID-19 by supporting new plans and strategies to diversify local economies and develop sustainable industries that create high-quality, broadly accessible jobs for all Californians. CERF has named the Kern Coalition one of 13 High Road Transition Collaboratives to receive funding. Kern Coalition is a partnership between Better Bakersfield and Boundless Kern (B3K Prosperity), Community Action Partnership of Kern (CAPK), Kern Inyo and Mono Central Labor Council, Building Healthy Communities, and Kern CCD.
- Two Local Energy Action Plan (LEAP)grants awarded by the DOE to support locallytailored pathways to clean energy for the County of Kern and City of Bakersfield.
- \$50 million in state funds to create a California Renewable Energy Laboratory (CREL) at Kern CCD to support the energy industry in the region with four projects: 1) Carbon Dioxide Reduction Center of Excellence, 2) Clean Energy and Grid Resilience Center of Excellence, 3) Clean Transportation Center of Excellence, and 4) Workforce Innovation and Learning Center. These four centers will partner with the District's colleges to provide formal and informal learning opportunities for the region's community centered on energy, including living laboratories featuring new technologies used in microgrids and carbon dioxide removal. CREL also has the mission to partner with local industry to identify transitional opportunities for the region's workforce and develop professional opportunities to upskill and reskill the incumbent workforce.
- \$83 million in state funds for the California State University, Bakersfield (CSUB) **Energy Innovation Center**, an incubator for science, research and technology that will bring together CSUB faculty and students, in partnership with industry and community leaders. The Center will contain CSUB's California Energy Research Center, expanded fabrication lab, faculty and staff offices, and serve as the home base to up to 30 degree programs of the Schools of Natural Science, Mathematics and Engineering and Extended Education and Global Outreach.
- A \$2.5 million pledge by CRC to fund kemai County initiatives including the establishment of the CRC Carbon Management Institute with Kern CCD, a first-of-its-

kind initiative that will empower local private and public partnerships to lead the way in defining how collaboration between education and industry can positively impact communities; the launch of the CRC Energy Transition Lecture Series at CSUB on relevant topics and emerging issues related to CCS and technologies that will lead the way to achieving a net zero future, and the establishment of the CRC Carbon **TerraVault Scholarship** to help provide CSUB students with academic opportunities.

Led by CTV Direct, Kern CCD and EPRI, the consortium includes the following organizations and may expand as appropriate based on further community engagement and future regional hub locations: **Industry** – Accenture, AECOM, Bloom Energy, Brookfield Renewable, Carbon TerraVault, EPRI, GeothermEx, GreenFire Energy, Pacific Gas and Electric (PG&E), Sage Geosystems, and Southern California Gas Company (SoCalGas); **Technology** –Avnos and Climeworks; **Academia** – Bakersfield College, CSUB, Taft College, and the University of California, Los Angeles (UCLA) Institute for Carbon Management; National Labs – Lawrence Livermore National Laboratory (LLNL), Livermore Lab Foundation (LLF), National Renewable Energy Laboratory (NREL), and Pacific Northwest National Laboratory (PNNL); **Community** – B3K Prosperity, CAPK, Greater Bakersfield Chamber of Commerce, Kern CCD, Kern County Black Chamber of Commerce, Kern County Hispanic Chamber of Commerce (KCHCC), Mexican American Opportunity Foundation (MAOF), National Impact Mentoring and Training Program (NIMTP), and the Tejon Indian Tribe; **Government** – City of Bakersfield, Kern Economic Development Corporation (KEDC), and the West Kern Water District (WKWD); and Labor Employers' Training Resource (ETR), International Brotherhood of Electrical Workers (IBEW) - Local 428; International Union of Operating Engineers - Local 12, Kern, Inyo, Mono Counties Building Trades Council, and the State Building and Construction Trades Council of California (SBCTC).

"Governor Newsom has set the most ambitious targets for California of any state in the nation – and in the world – to rapidly and permanently remove carbon from the atmosphere, and California DAC Hubs will be essential to helping achieve the Governor's goals," said Mac McFarland, CRC President and Chief Executive Officer. "According to the International Energy Agency (IEA), carbon removal technologies such as DAC+S are expected to be critical in the transition to a decarbonized economy. We have an unprecedented consortium of project participants who are committed to working together to create DAC+S hubs across the state, accelerate the energy transition and benefit working families throughout our California communities."

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"The 'community' in community colleges is a real answer for good jobs with equity and the development of the future energy workforce," said Sonya Christian, Chancellor, Kern

Community College District. "Kern CCD is well-positioned to do the important work to ensure the California DAC Hub project is grounded in authentic partnerships between community and industry and provides educational and workforce opportunities that will lead to economic mobility for the people and communities we serve."

"Preserving affordability and reliability on the path to net-zero rests on deploying every tool in the carbon reduction toolbox," said Neva Espinoza, Vice President, Energy Supply and Low-Carbon Resources, EPRI. "Advancing the development of direct air capture technology through collaborative innovation could bring net-zero one step closer by offsetting emissions from hard-to-decarbonize sources."

"It is very exciting that these organizations are working together cross-functionally to not only provide a carbon removal and storage solution but doing so using low carbon energy and providing economic benefits to California communities," said California State Treasurer Fiona Ma. "This project is more than a shared DAC infrastructure project; it serves as a hub model that delivers community benefits and jobs for other parts of the U.S. that also face climate change induced challenges."

CTV is committed to engaging with our community-based organizations and including them throughout the development of the California DAC Hub and future associated regional hubs. Open and meaningful dialogue with our diverse stakeholders is a priority for the consortium as we expand participation of organizations and local communities.

Guggenheim Securities, LLC is acting as financial advisor for CRC in connection with the formation of CTV Direct and the development of the California DAC Hub consortium.

About Carbon TerraVault Holdings

Carbon TerraVault Holdings, LLC (CTV), a subsidiary of CRC, provides services that include the capture, transport and storage of carbon dioxide for its customers. CTV is engaged in a series of CCS projects that inject carbon dioxide (CO₂) captured from industrial sources into depleted underground reservoirs and permanently store CO2 deep underground. CTV Direct is a wholly owned subsidiary of CTV focused on direct air capture. For more information, visit www.carbonterravault.com.

About EPRI

Founded in 1972, EPRI is the world's preeminent independent, non-profit energy research and development organization, with offices around the world. EPRI's trusted experts collaborate with more than 450 companies in 45 countries, driving innovation to ensure

the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe. Together, we are shaping the future of energy.

About Kern Community College District

Kern Community College District (Kern CCD) serves more than 33,000 students in communities over 24,800 square miles in parts of Kern, Tulare, Inyo, Mono and San Bernardino counties through the programs of Bakersfield College, Cerro Coso College, and Porterville College.

Cautionary Note Regarding Forward-Looking Statements

This press release contains statements that we believe to be "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements other than historical facts are forwardlooking statements, and include statements regarding our future financial position, business strategy, projected revenues, earnings, costs, capital expenditures and plans and objectives of management for the future. Words such as "expect," "could," "may," "anticipate," "intend," "plan," "ability," "believe," "seek," "see," "will," "would," "estimate," "forecast," "target," "guidance," "outlook," "opportunity" or "strategy" or similar expressions are generally intended to identify forward-looking statements. Such forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in, or implied by, such statements. Although CRC believes the expectations and forecasts reflected in our forward-looking statements are reasonable, they are inherently subject to numerous risks and uncertainties, most of which are difficult to predict and many of which are beyond our control. No assurance can be given that such forward-looking statements will be correct or achieved or that the assumptions are accurate or will not change over time. Particular uncertainties that could cause our actual results to be materially different than those expressed in our forwardlooking statements include, but are not limited to: legislative or regulatory changes, including those related to direct air capture and the availability of related tax credits; our ability to successfully develop and finance direct air capture projects, including our ability to obtain funding from the federal government and other financing sources; availability or timing of, or conditions imposed on, permits and approvals necessary for direct air capture and other carbon management projects; and the other risks and uncertainties set forth in the CRC's Annual Report on Form 10-K for the year ended December 31, 2021 (especially in Part I, Item 1A. Risk Factors and Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations) and in the CRC's other filings with the SEC. There may be other factors of which CRC is not currently aware that

may affect matters discussed in the forward-looking statements and may also cause actual results to differ materially from those discussed. CRC does not assume any obligation to publicly update or supplement any forward-looking statement to reflect actual results, changes in assumptions or changes in other factors affecting these forwardlooking statements other than as required by law. Any forward-looking statements speak only as of the date hereof or as of the dates indicated in the statement.

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